

FIG. 1

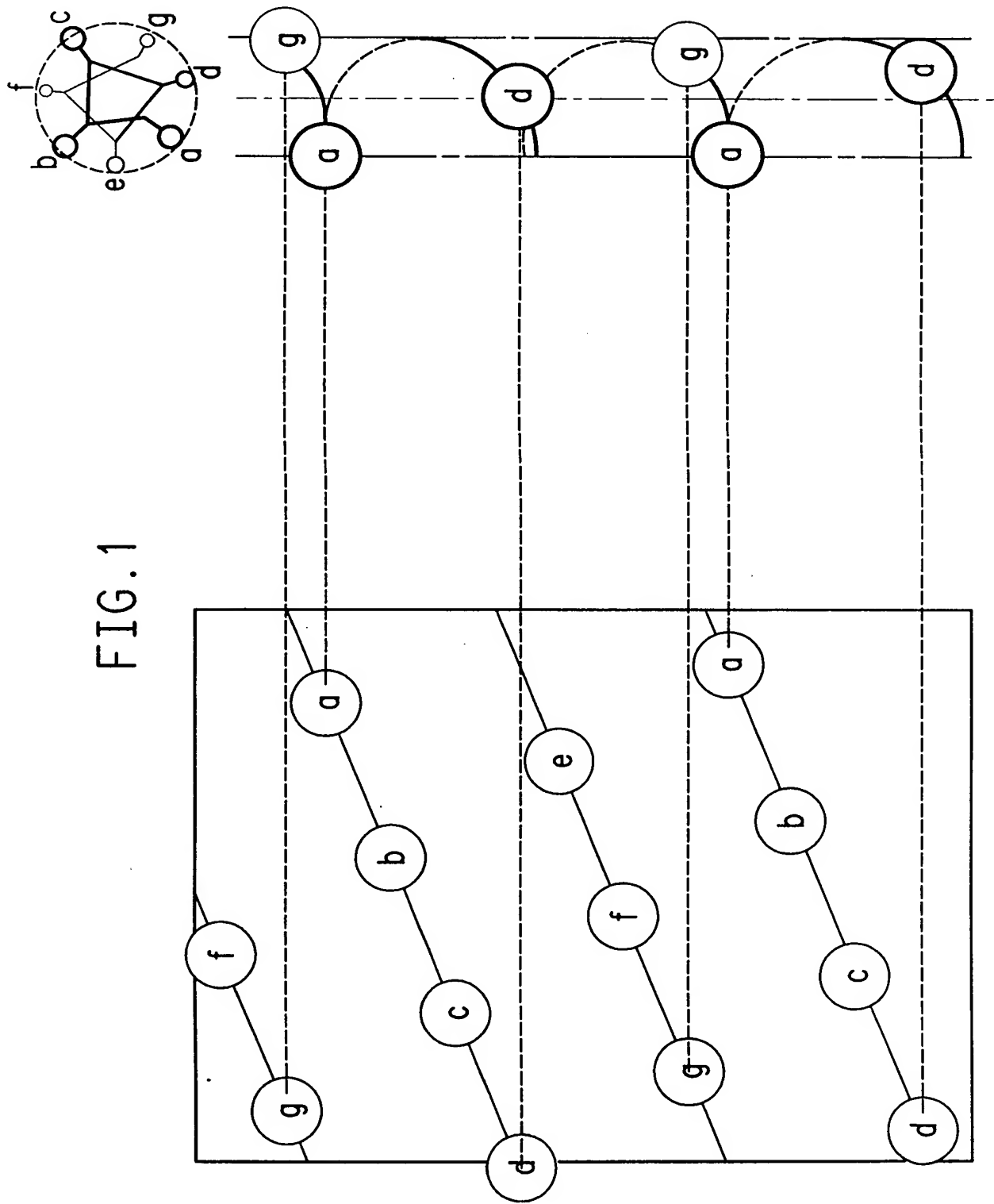


FIG.2A

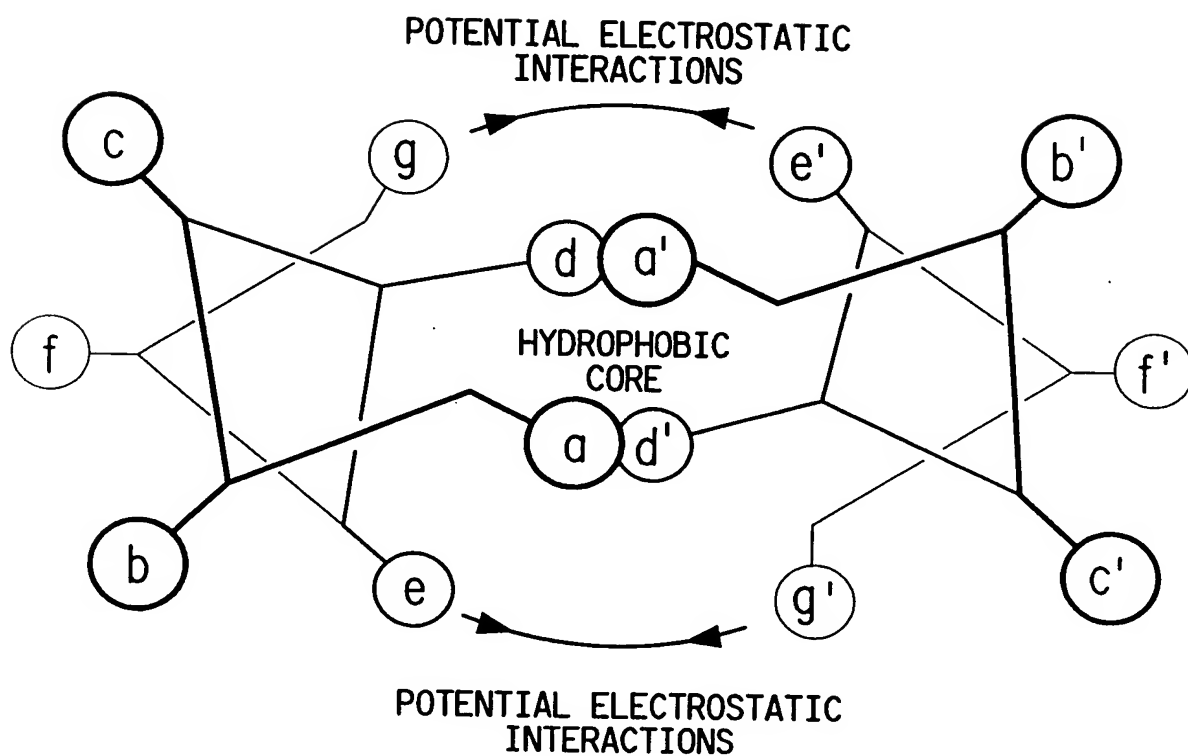


FIG.2B

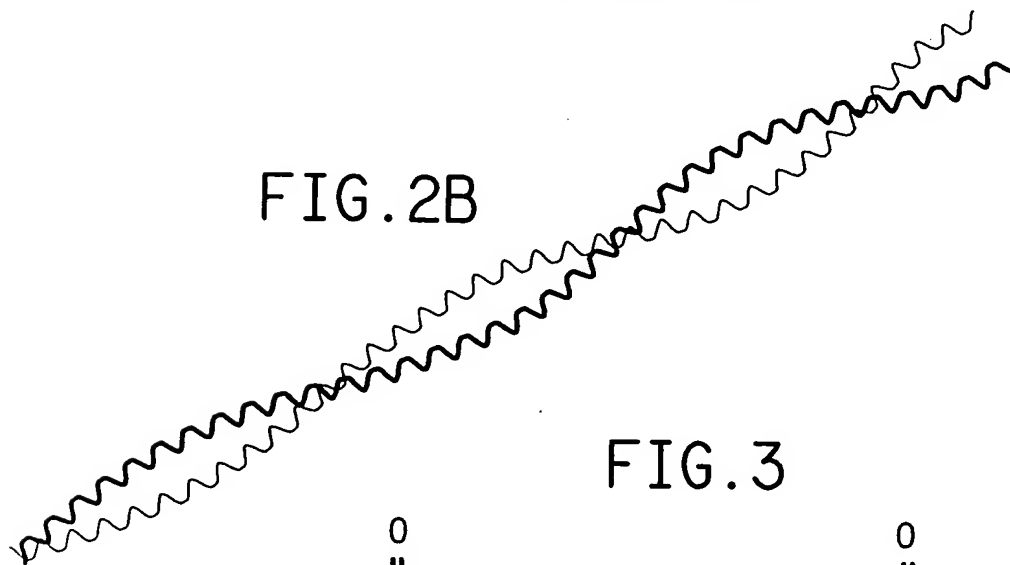


FIG.3

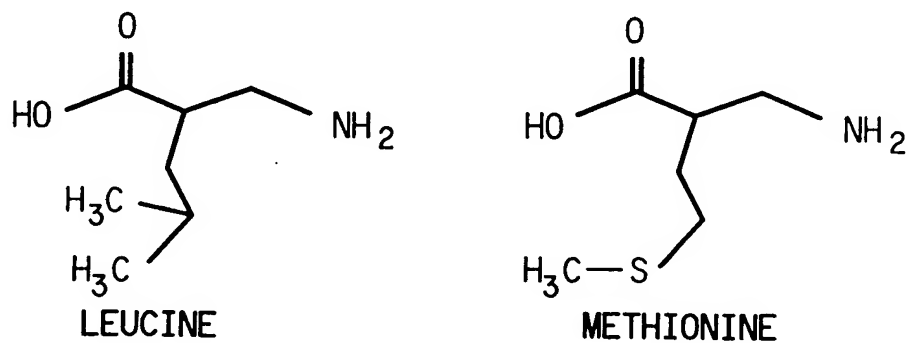


FIG. 4a

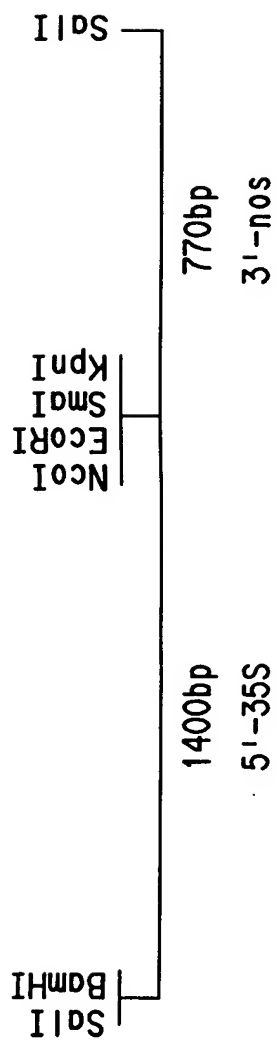


FIG. 4b

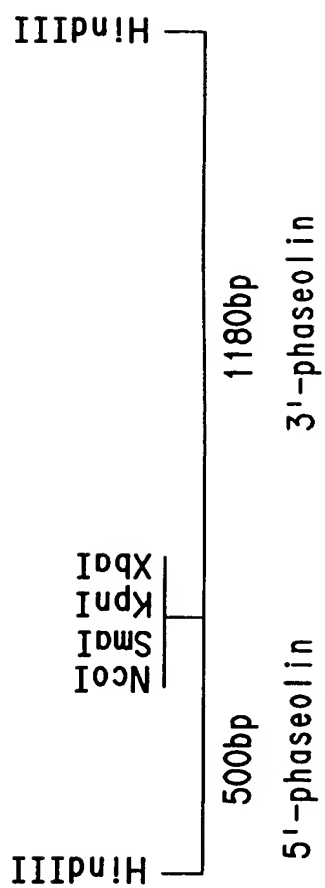
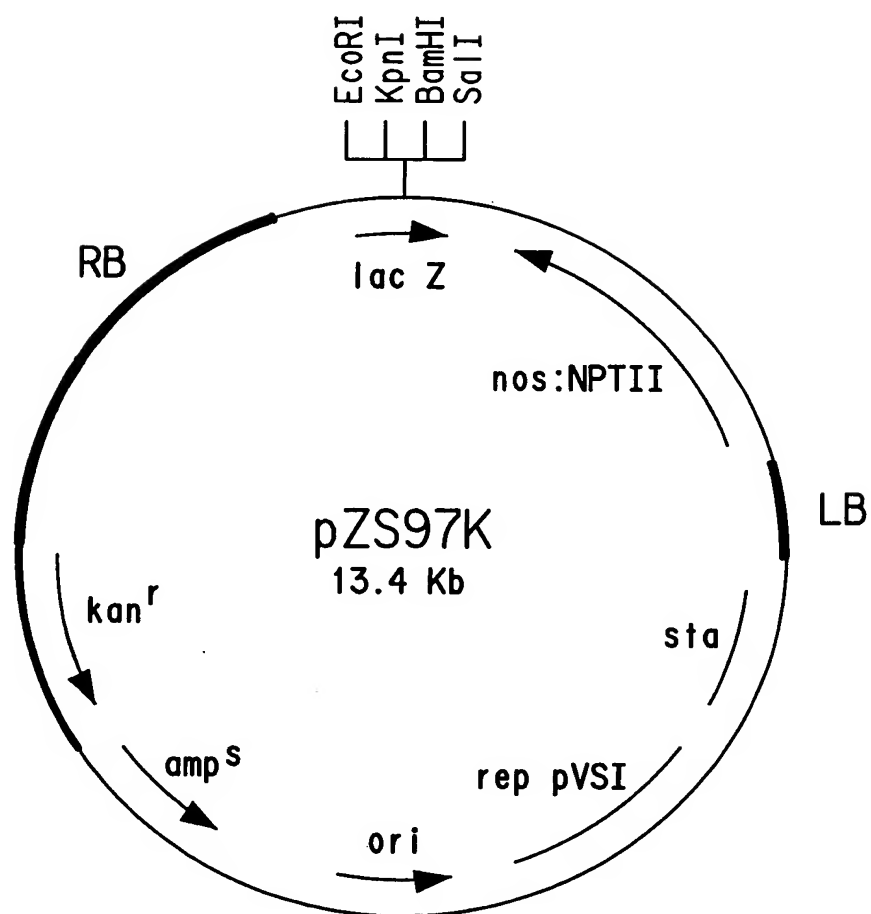


FIG. 5



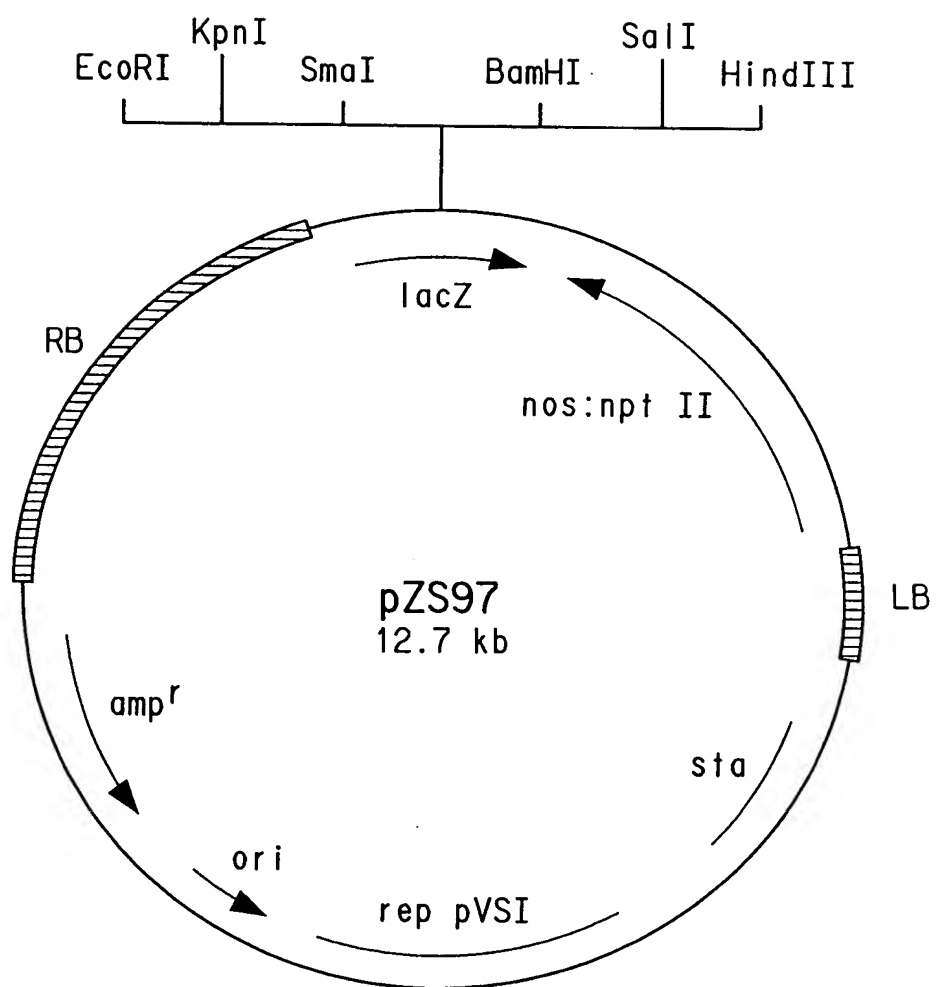


FIG.6

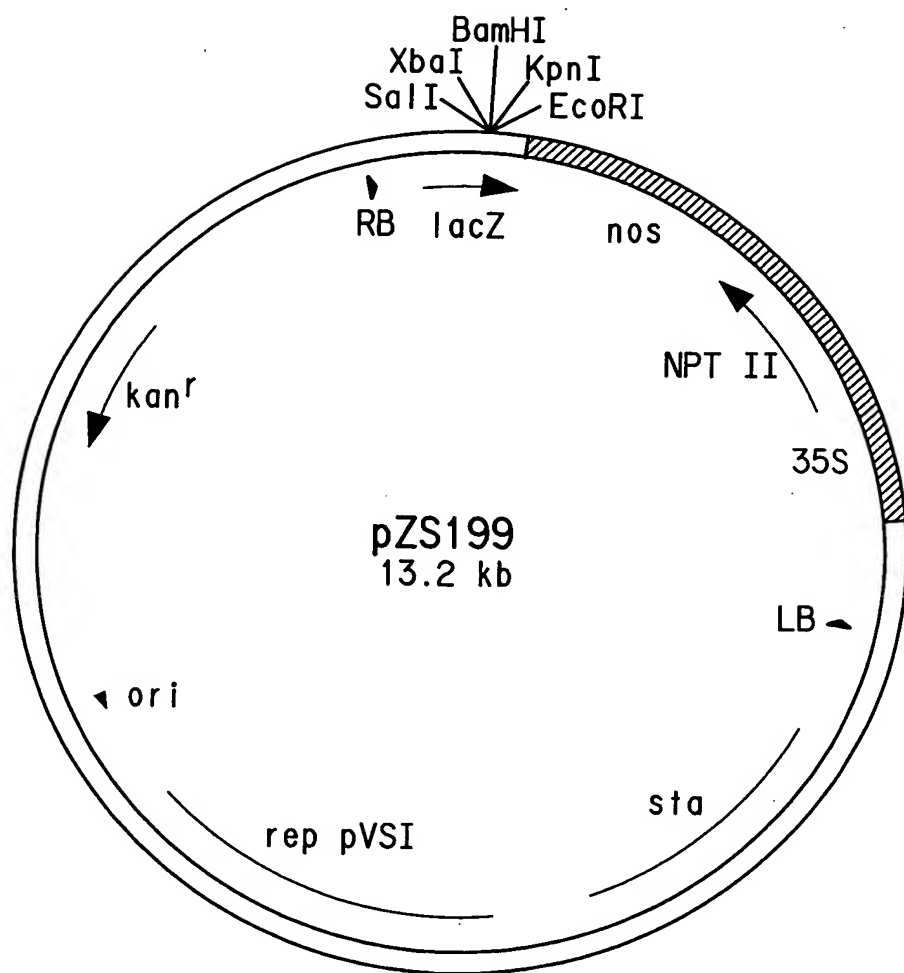


FIG.7A

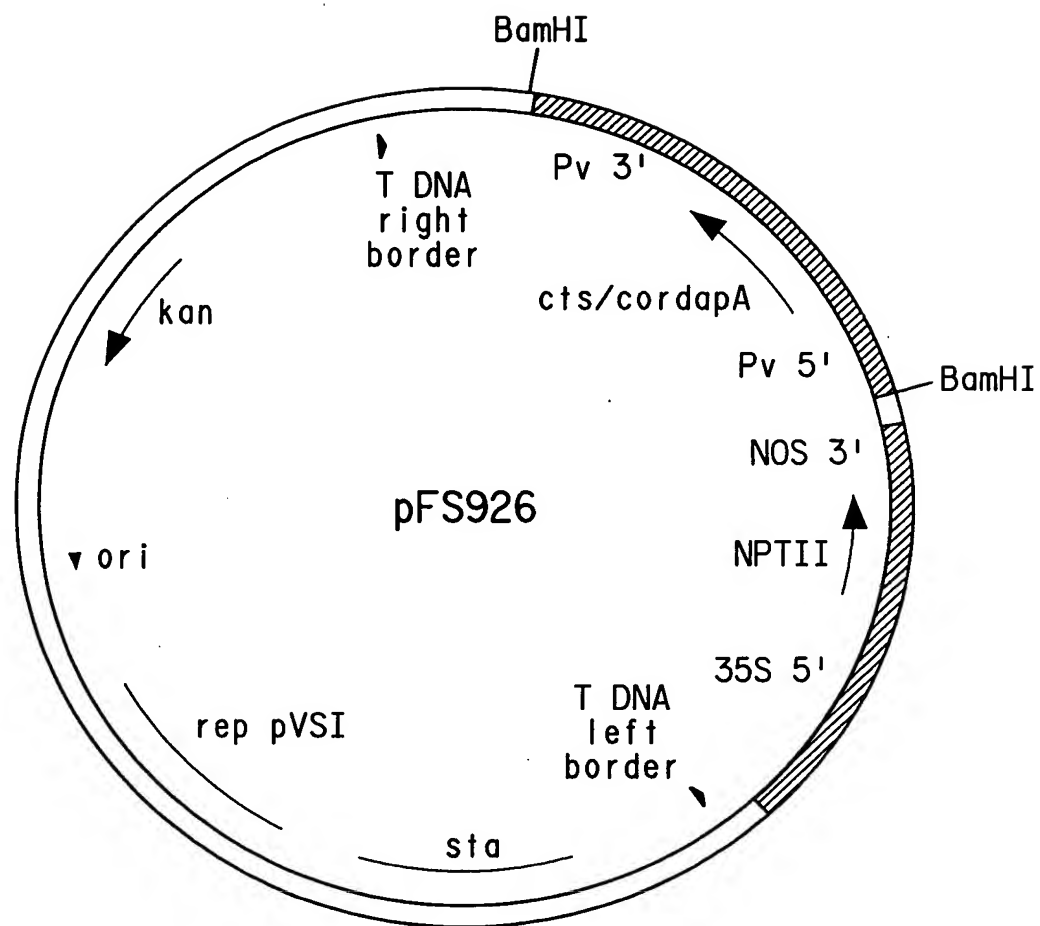


FIG. 7B

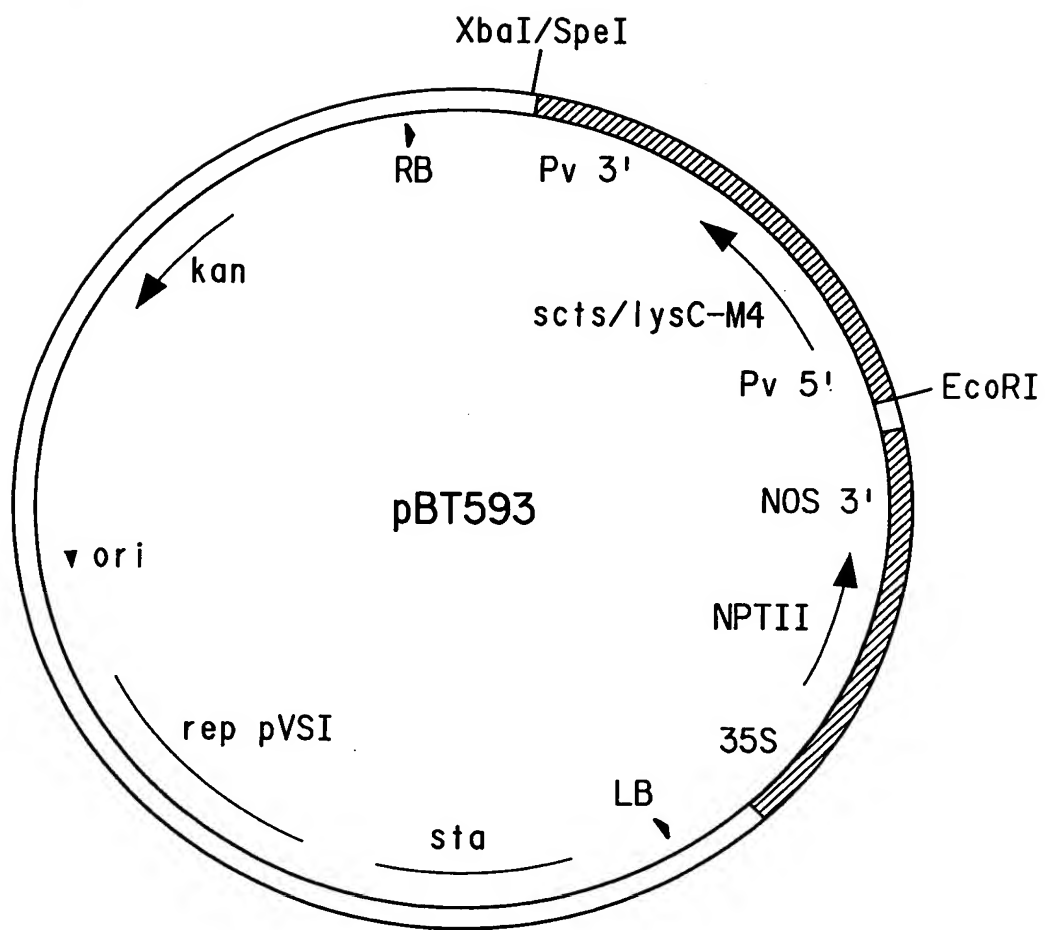


FIG. 7C

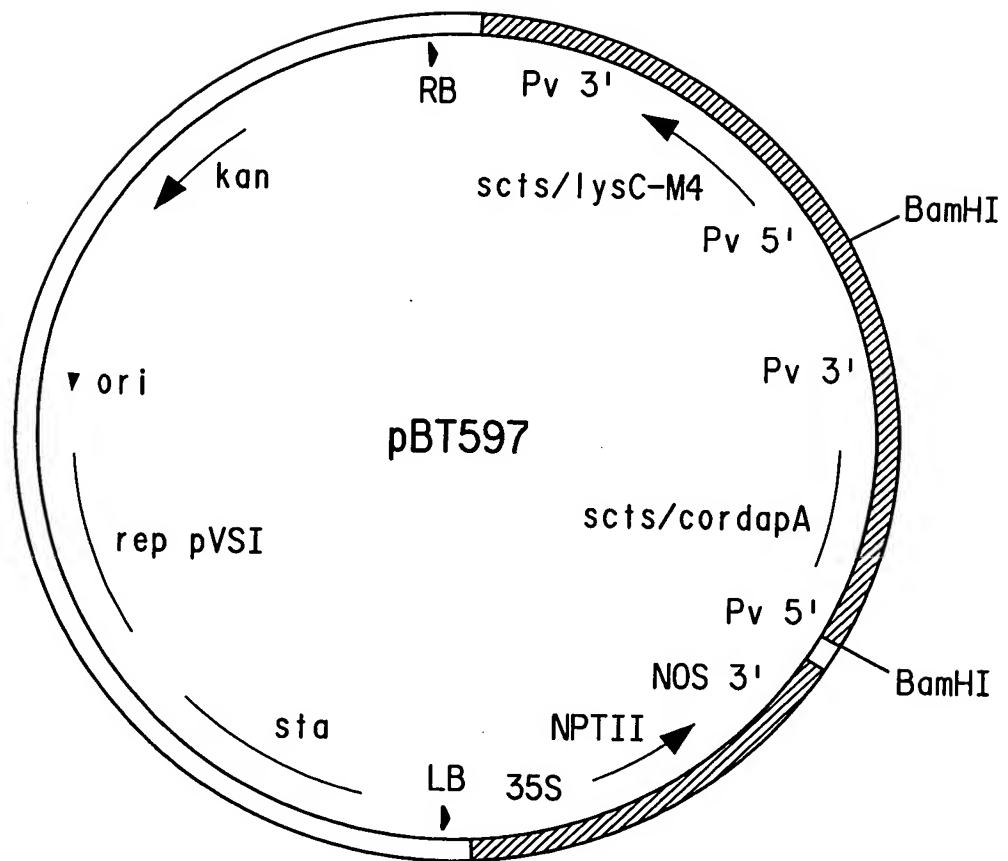


FIG. 7D

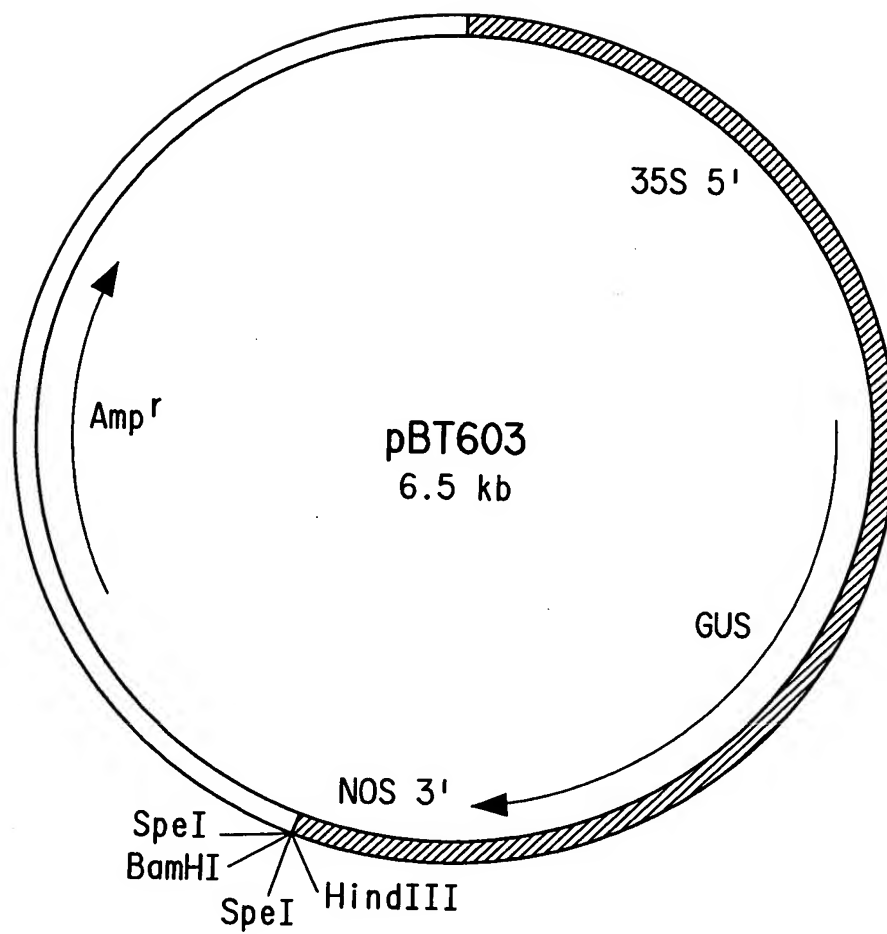


FIG.8A

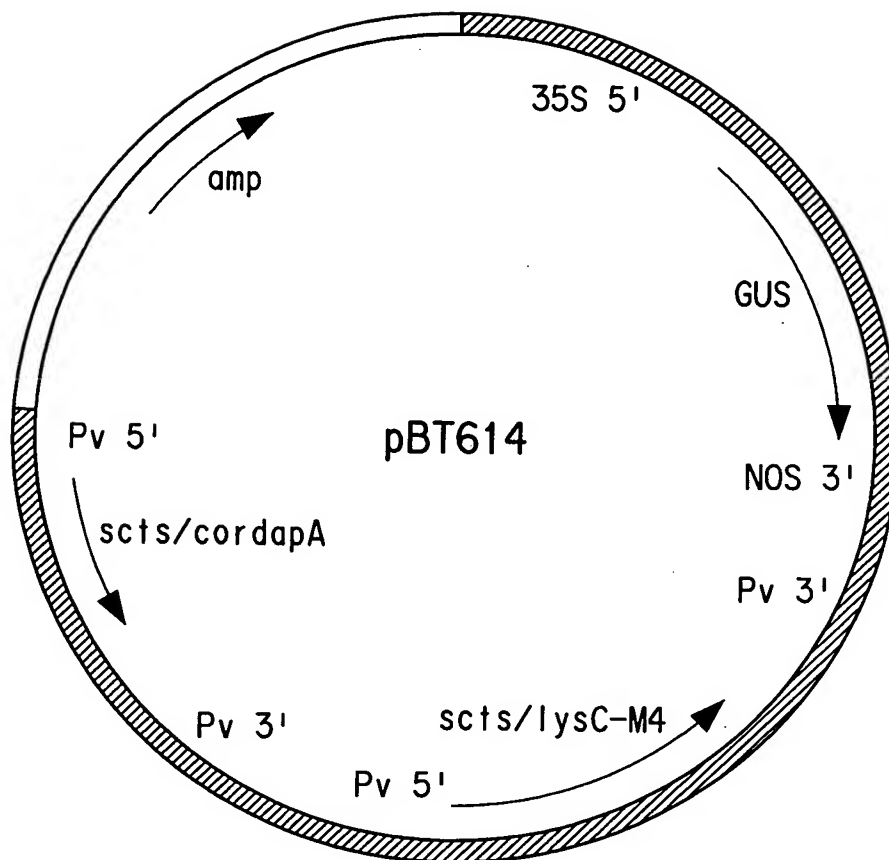
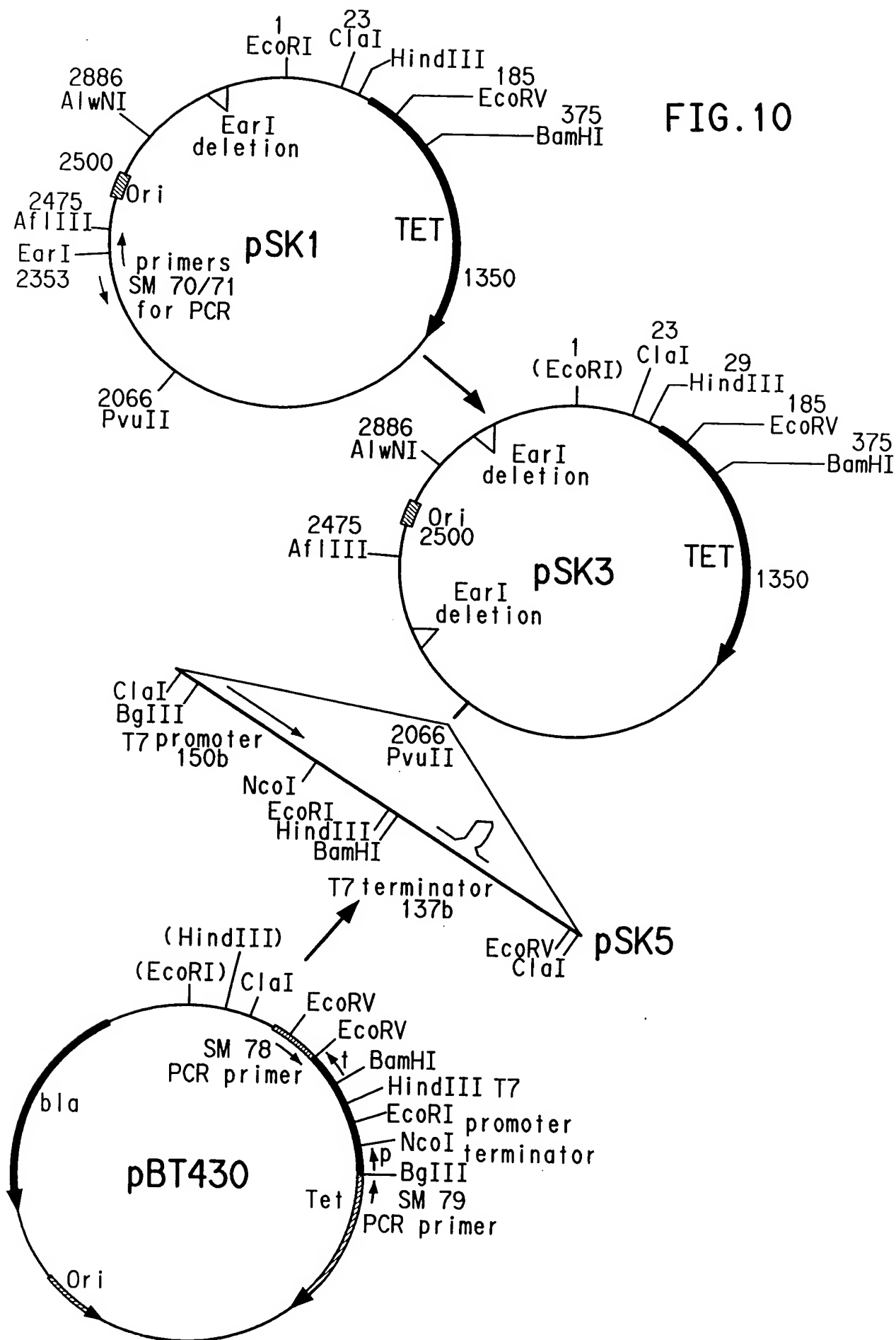


FIG. 8B

FIG.9

SEQ ID NO:104	19	KKSGVLILGAGRVXRPAADFLASVRTISSQQWYKTYFGADSEKTDVHVI	68
		. . . : : .
S. cerevisiae SDH	1	MGKNVLLGSGFVAQPVIDTLAA.....NDDINVT	30
	69	VASLYLKDAKETVEGISDVVEAVRLDVSDSESLKYVSQVDVLSLLPASC	118
		: : : : 	
	31	VACRTLANA.QALAKPSGSKAISLDVTDSDSALDKVLADNDVVISLIPYTF	79
	119	HA	120
		:	
	80	HP	81
SEQ ID NO:105	1	KHTATLLEFGDIKNQGTTAMAKTVGIPAAIGALLIEDKIKTRGVLRL	50
		. : : : : : : : :
S. cerevisiae SDH	374	TRTSTLVDYGV...GGYSSMAATVGYPVAIATKFFVLDGTIKGPGLLAPY	420
	51	EAEVYLPALDIL.QAYGIKLMKAE	74
		. : : : : .	
	421	SPEINDPIMKELDKYGIYLKEKTVA	446

FIG. 10



NCOI EARI ASP718ECORI

CATGGAGGAGAAGATGAAGGC → GATGGAAGAGAAAGATGAAGGCGTGATAAGTACCG

CTCCTCTTCTACT TCCGCTA CCTTC TC TCGACTTCGCACTATCCATGGCTTAA

M E E K M K A M E E K M K A

↓ LIGATE OLIGOS

GATGGAGGAGAAGATGAAGGC

CCTCCTCTTCTACTTCCGCTA

M E E K M K A

↓ LIGATE TO EARI CUT VECTOR

NCOI EARI ASP718ECORI

CATGGAGGAGAAGATGAAGGC GATGGAGGAGAAGATGAAGGC GATGGAAGAGAAAGATGAAGGCGTGATAAGTACCG

CTCCTCTTCTACT TCCGCTA CCTCCCTCTTCTACTTCCGCTA CCTTC TC TCGACTTCGCACTATCCATGGCTTAA

M E E K M K A M E E K M K A M E E K M K A

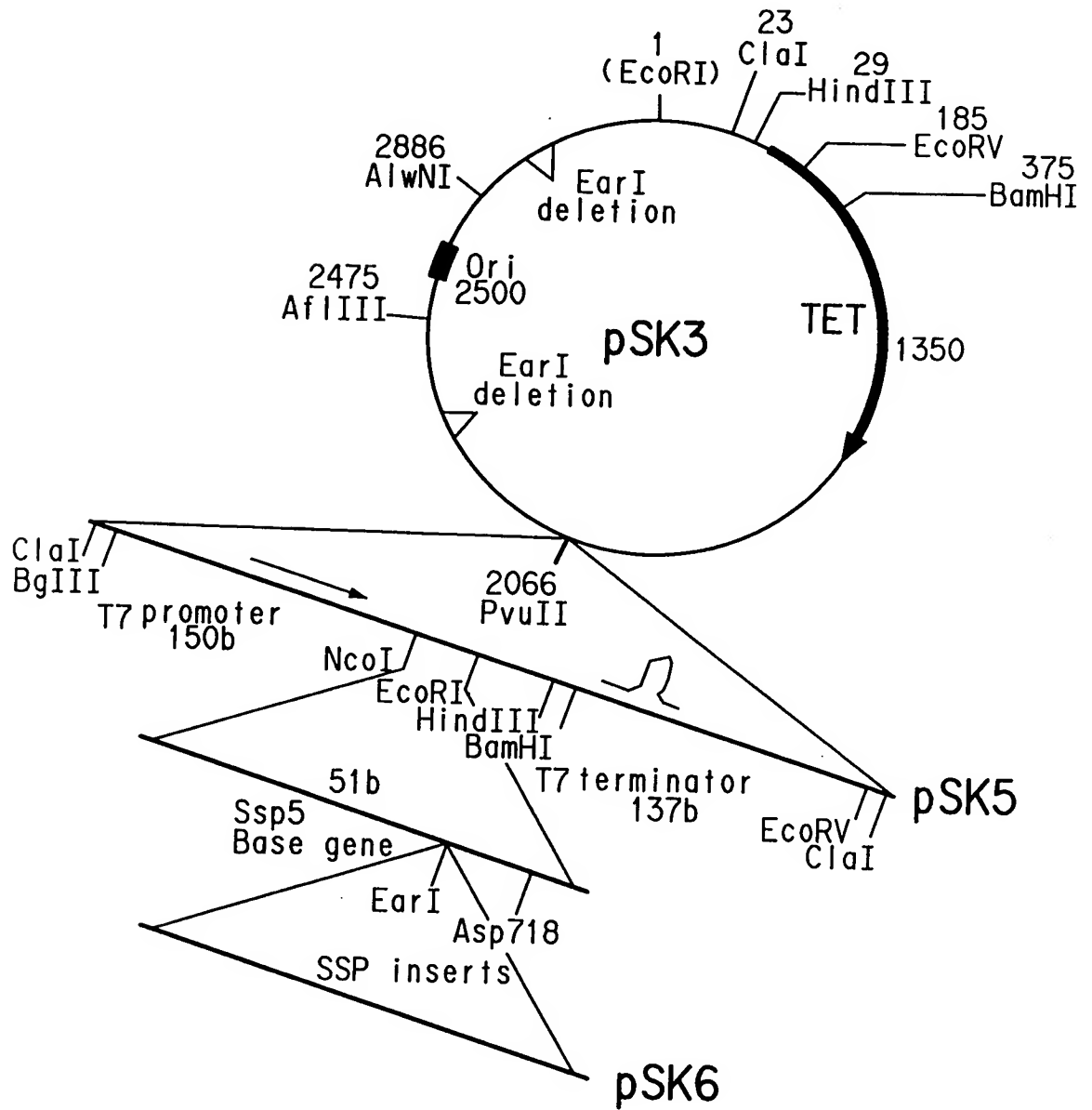
NCOI
EARI
ASP718ECORI

CATGGAGGAGAGATGAAGGC GATGGAGGAGAGATGAAGGC GATGGAGAGAGAGATGAAGGCTGATAGGTACCG

CTCCTCTTCTACT TCCGCTA CTCCTCTTCTACTTCCGCTA CCTTCTCTTCGACTTCGGCACTATCCATGGCTTAA

M E E K M K A M E E K M E E K M K A

FIG.12





BASE GENE

GCTGGAAGAAAGATGAAGGCTATGGAGGAGAAGATGAAATGGCTTGAGGAAAAGATGAAGAA
CCTTCTTTTCTACTTCGGATACCTCCTGTCTACTTTACCGAACTCCTTTTCTACTTCTTCGA

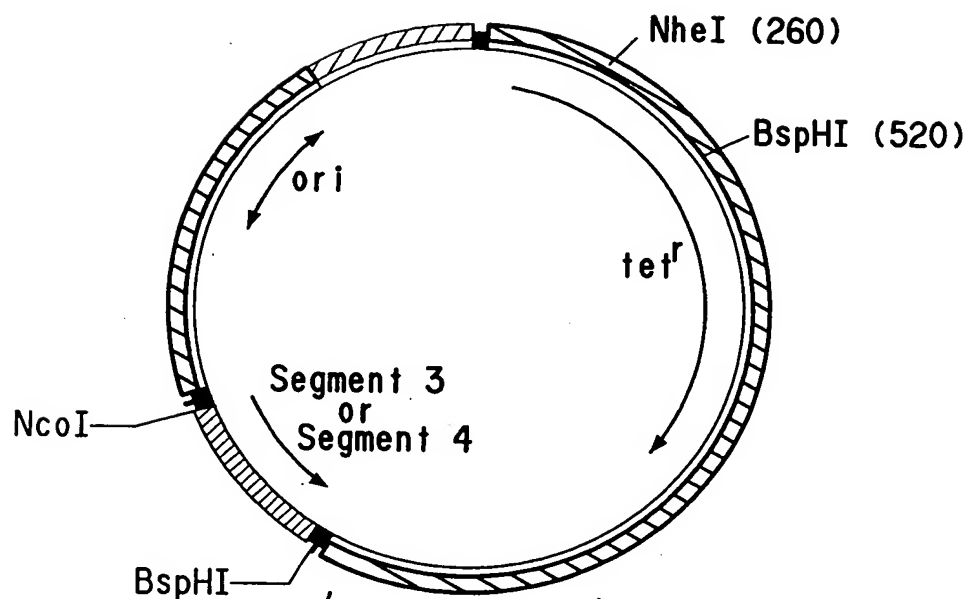
1 OLIGOS LIGATED INTO EARI CUT BASE GENE

NCOI

EARI	BSPHI	ASP718	ECORI
------	-------	--------	-------

CGAAGAGCAAGATGAAGGTCATGAAGTGATAGGTACCG
GCTTCCTCTTCTACTTCCAGTACTTCACATATCCATGGCTTAA

FIG. 14a



Segment 3 Digest NheI/BspHI Segment 4 Digest NheI/NcoI

FIG. 14b

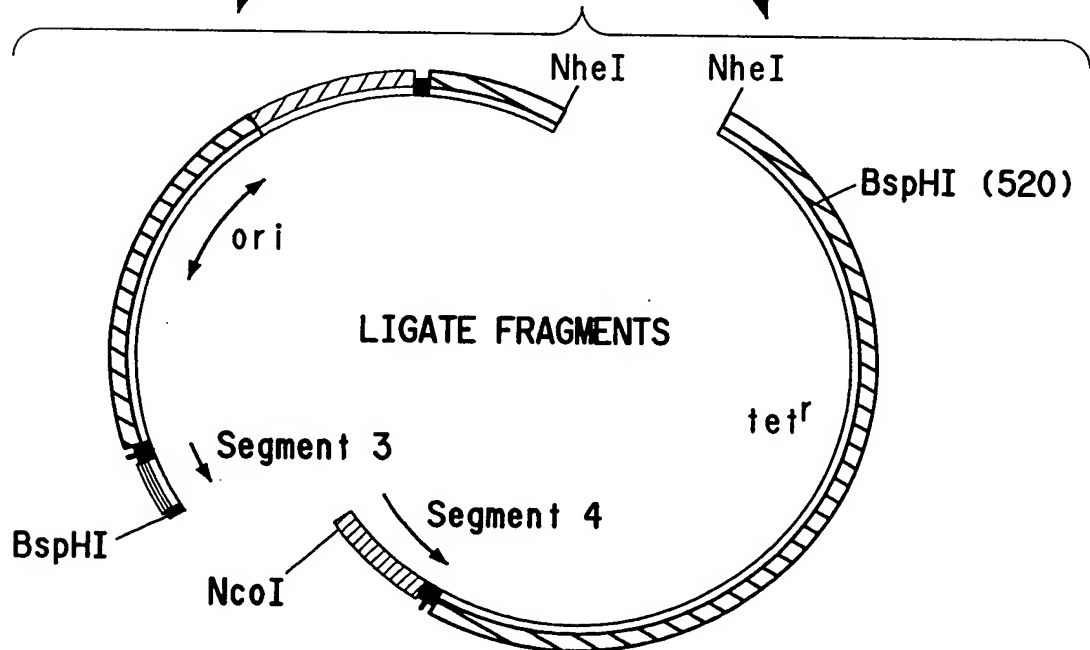
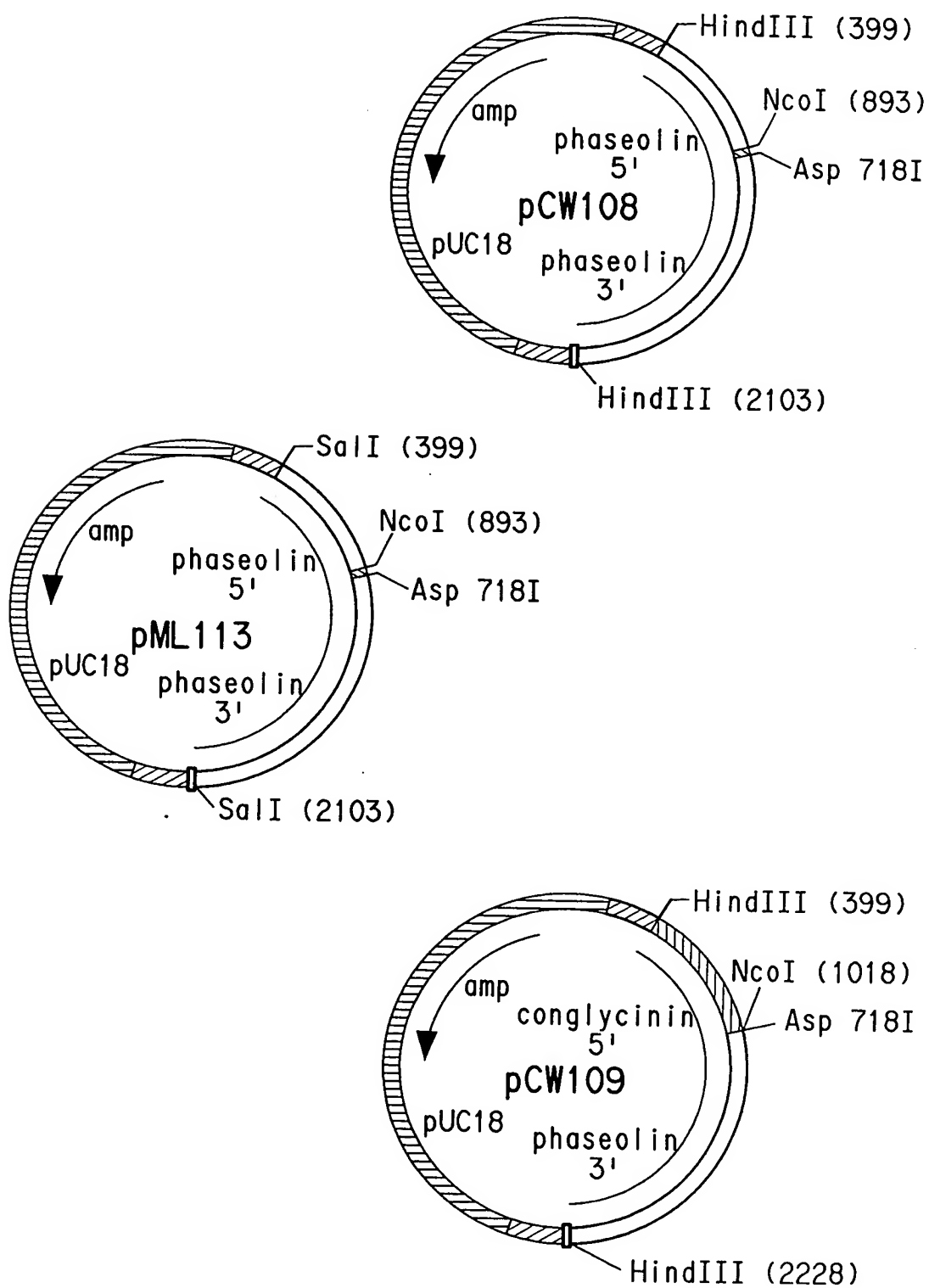


FIG. 15



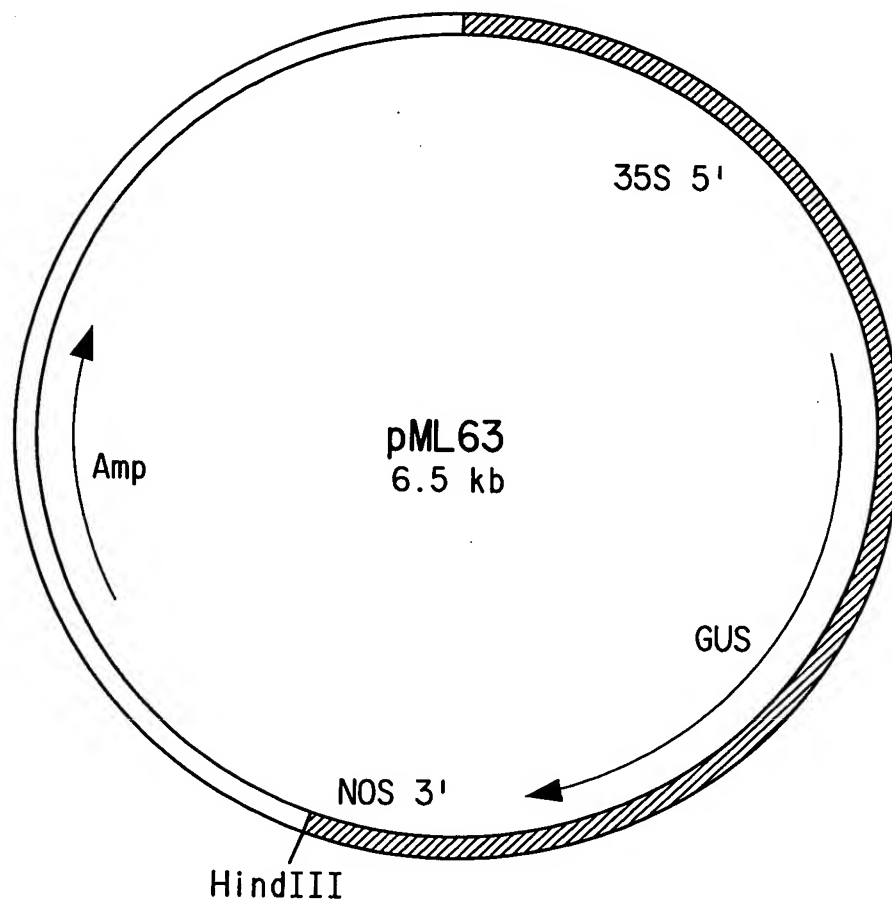


FIG.16

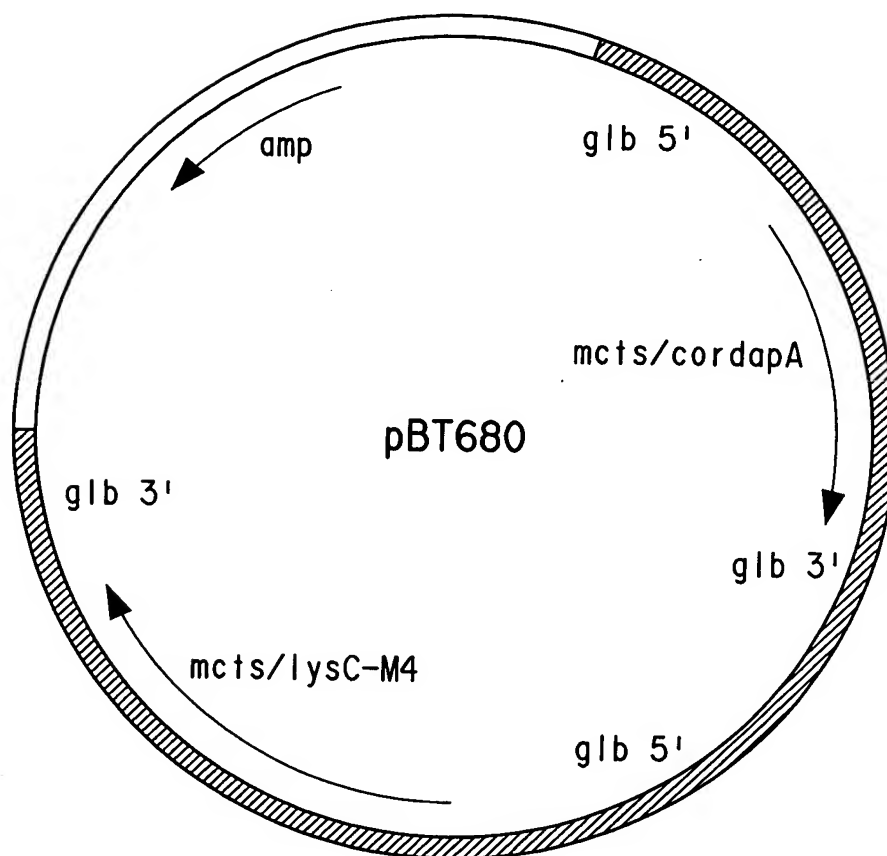


FIG.17

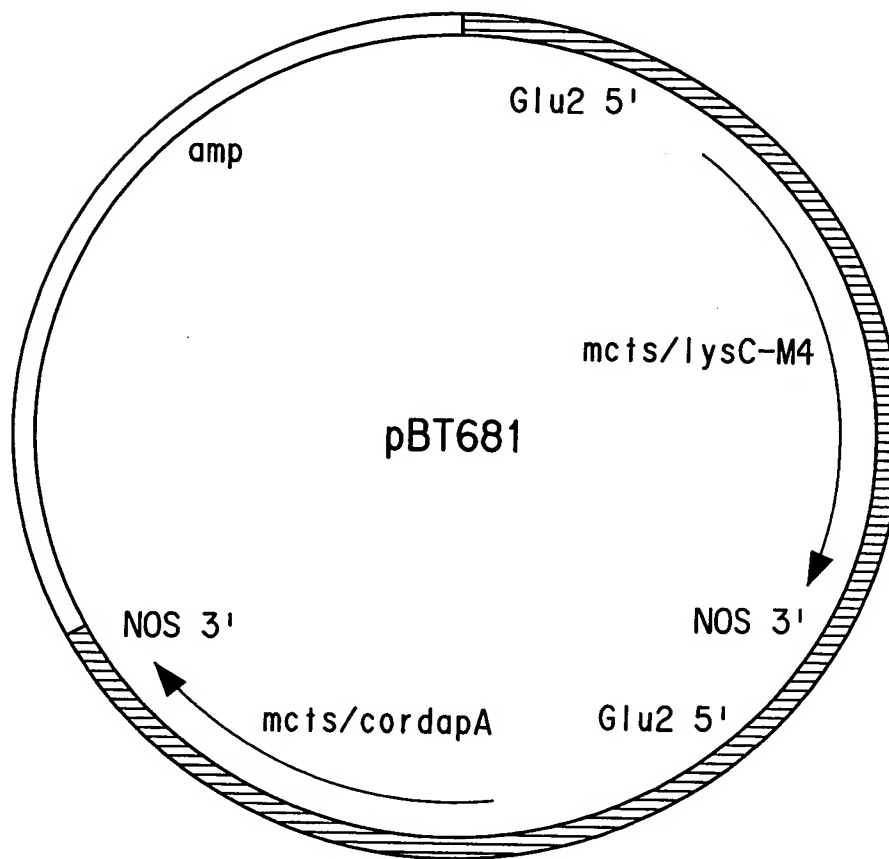


FIG. 18

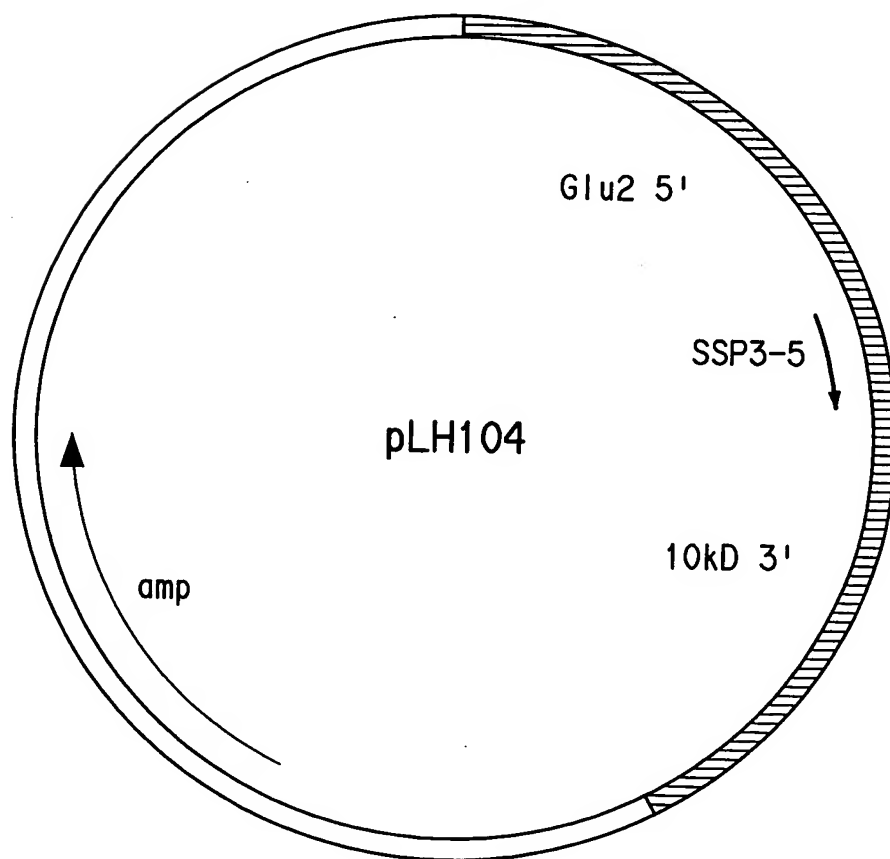


FIG. 19

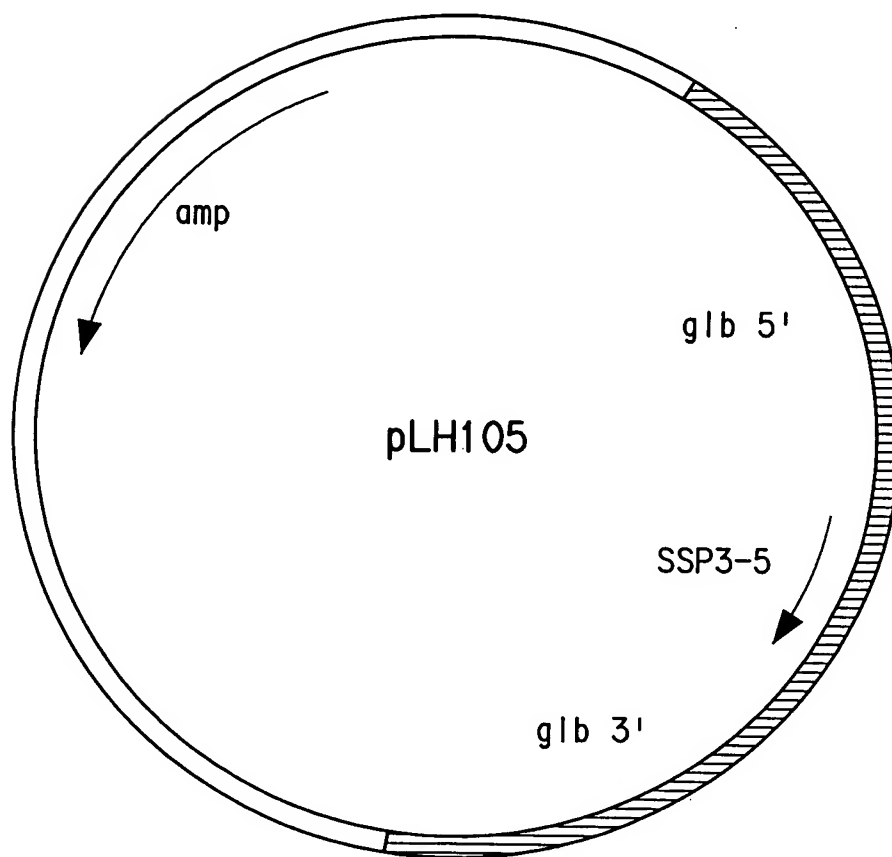


FIG.20

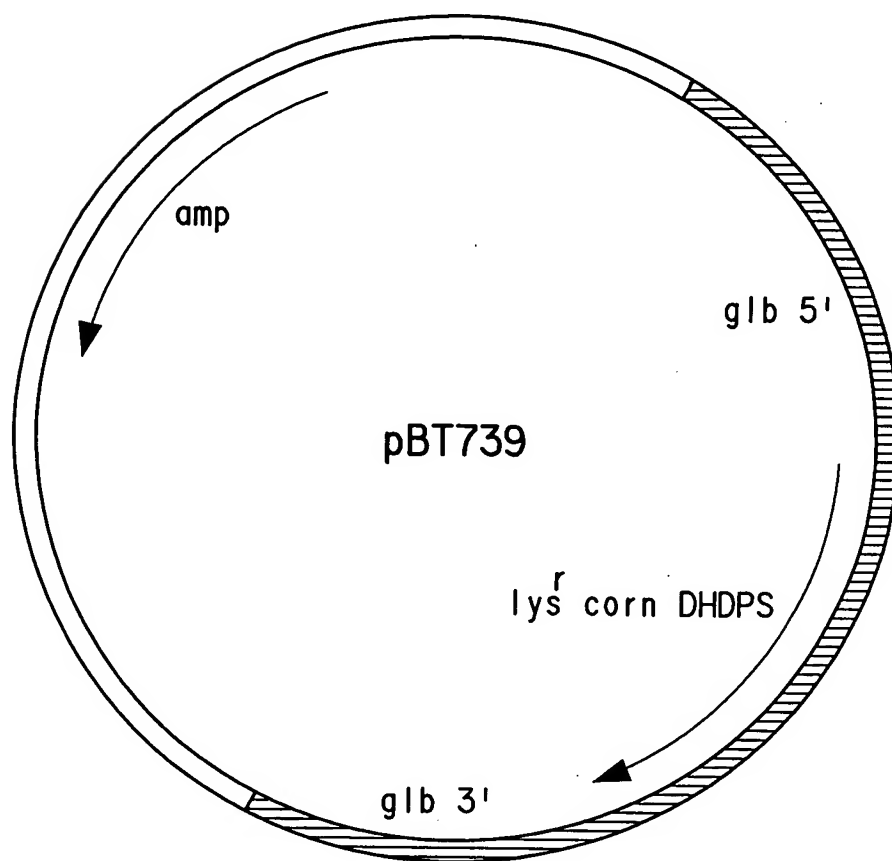


FIG.21

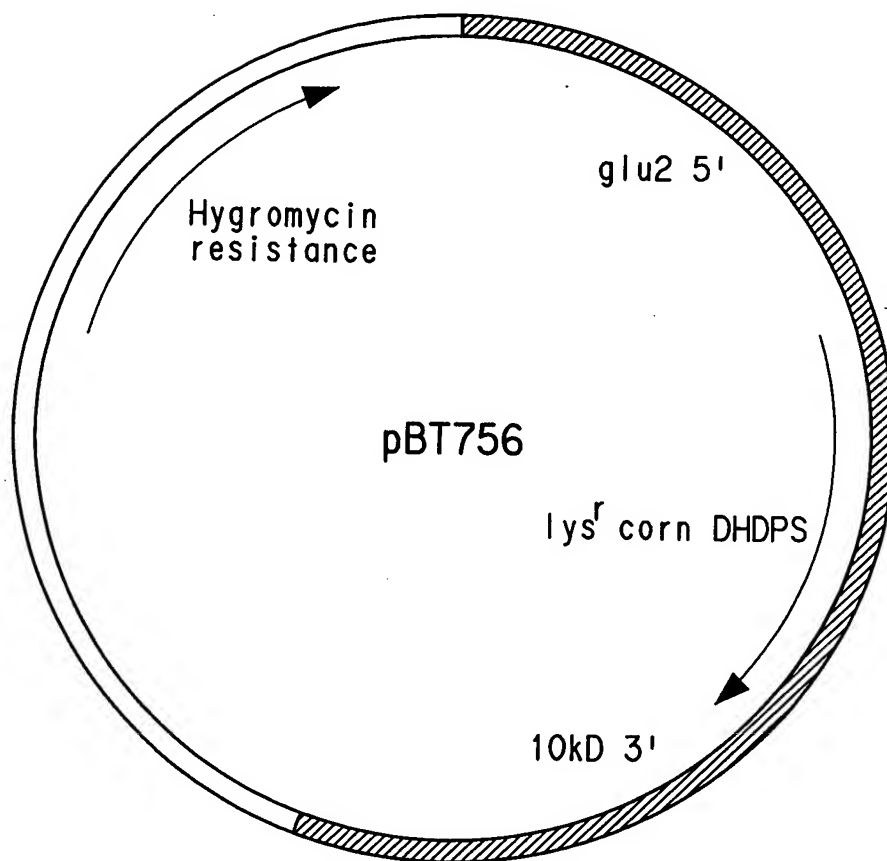


FIG.22